PATENT
0690-0115P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: FRANZ, Wolfgang M.

Int'l. Appl. No.: PCT/EP01/03412

Appl. No.: New Group:

Filed: February 19, 2002 Examiner:

For: PROCESS FOR ISOLATION OF IN VITRO DIFFERENTIATED SOMATIC CELLS

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, DC 20231

February 19, 2002

Sir:

The following Preliminary Amendments and Remarks are respectfully submitted in connection with the above-identified application.

AMENDMENTS

IN THE SPECIFICATION:

Please amend the specification as follows:

Before line 1, insert --This application is the national phase under 35 U.S.C. § 371 of PCT International Application No. PCT/EP01/03412 which has an International filing date of March 26, 2001, which designated the United States of America.--

IN THE CLAIMS:

Please amend the claims as follows:

4. (Amended) Expression cassette as claimed in claim 1, wherein the receptor has affinity for a ligand.

7. (Amended) Expression cassette as claimed in claim 1, further comprising a reversibly integrated resistance gene.

10. (Amended) Expression cassette as claimed in claim 1 further comprising a second therapeutic gene.

12. (Amended) Expression cassette as claimed in claim 1, with coding sequences which code essentially for human or humanized gene products.

13. (Amended) Expression cassette as claimed in claim 1, wherein the ventricle-specific myosin-light chain-2 (MLC-2v) promoter is used as the organ-specific or tissue specific promotor.

15. (Amended) Expression cassette as claimed in claim 13 or 14, with coding sequences which code essentially for human or humanized gene products.

16. (Amended) Vector comprising an expression cassette as claimed in claim 1.

17. (Amended) Vector comprising an expression cassette as claimed in claim 13.

21. (Amended) Process as claimed in claim 18, wherein the embryonal stem cells are obtained from

a) blastocysts or

b) enucleated oocytes into which the nucleus of a differentiated adult somatic cell has been transferred,

22. (Amended) Process as claimed in claim 18, wherein the receptor-specific ligands are coupled to paramagnetic microbeads and the ligand-marked cells are separated from the unmarked cells in a magnetic field.

23. (Amended) Process as claimed in claim 18 for producing autologous human somatic cells, the pluripotent precursor cells being obtained from an autologous human donor.

27. (Amended) Transgenic cardiomyocytes which can be obtained using a process as claimed in claim 19.

28. (Amended) Transgenic cardiomyocytes which can be obtained using a process as claimed in claim 18.

29. (Amended) Use of transgenic cells as claimed in claim 24 for preferably autologous cell transplantation, or for gene therapy, as especially for cell-mediated gene transplantation.

30. (Amended) Use of an expression cassette as claimed in claim 1 or of a vector as claimed in claim 16 for genetic alteration of pluripotent precursor cells of a mammal.

31. (Amended) Use of an expression cassette as claimed in claim 1 or of a vector as claimed in claim 16 for producing in vitro differentiated somatic cells of a mammal.

REMARKS

The specification has been amended to provide a cross-reference to the previously filed International Application.

The claims have been amended to delete improper multiple claim dependencies and to place the application into better for form examination. Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: VERSION WITH MARKINGS TO SHOW CHANGES MADE

VERSION WITH MARKINGS TO SHOW CHANGES MADE

The claims have been amended as follows:

4. (Amended) Expression cassette as claimed in [one of the preceding claims]claim 1, wherein the receptor has affinity for a ligand.

7. (Amended) Expression cassette as claimed in [one of the preceding claims, wherein it moreover comprises]claim 1, further comprising a reversibly integrated resistance gene.

10. (Amended) Expression cassette as claimed in [one of the preceding claims, wherein it moreover comprises]claim 1 further comprising a second therapeutic gene.

12. (Amended) Expression cassette as claimed in [one of the preceding claims]claim 1, with coding sequences which code essentially for human or humanized gene products.

13. (Amended) Expression cassette as claimed in [one of the preceding claims]claim 1, wherein the ventricle-specific myosin-light chain-2 (MLC-2v) promoter is used as the organ-specific or tissue specific promotor.

15. (Amended) Expression cassette as claimed in [one of claims 13 to 14]claim 13 or 14, with coding sequences which code essentially for human or humanized gene products.

16. (Amended) Vector comprising an expression cassette as claimed in [one of claims 1 to 12]claim 1.

17. (Amended) Vector comprising an expression cassette as claimed in [one of claims 13 to 15]claim 13.

21. (Amended) Process as claimed in [one of claims 18 to 20]claim 18, wherein the embryonal stem cells are obtained from

c) blastocysts or

d) enucleated oocytes into which the nucleus of a[n] differentiated adult somatic cell has been transferred,

22. (Amended) Process as claimed in [one of claims 18 to 21]claim 18, wherein the receptor-specific ligands are coupled to paramagnetic microbeads and the ligand-marked cells are separated from the unmarked cells in a magnetic field.

23. (Amended) Process as claimed in [one of claims 18 to 22]claim 18 for producing autologous human somatic cells, the pluripotent precursor cells being obtained from an autologous human donor.

27. (Amended) Transgenic cardiomyocytes which can be obtained using a process as claimed in [one of claims 19 to 23]claim 19.

28. (Amended) Transgenic cardiomyocytes which can be obtained using a process as claimed in claim 18[or 20 to 23].

29. (Amended) Use of transgenic cells as claimed in [one of claims 24 to 28]claim 24 for preferably autologous cell transplantation, or for gene therapy, as especially for cell-mediated gene transplantation.

30. (Amended) Use of an expression cassette as claimed in [one of claims 1 to 15]claim 1 or of a vector as claimed in claim 16 [or 17] for genetic alteration of pluripotent precursor cells of a mammal.

31. (Amended) Use of an expression cassette as claimed in [one of claims 1 to 15]claim 1 or of a vector as claimed in claim 16 [or 17] for producing in vitro differentiated somatic cells of a mammal.